



# UNITED STATES PATENT AND TRADEMARK OFFICE

UNITED STATES DEPARTMENT OF COMMERCE  
United States Patent and Trademark Office  
Address: COMMISSIONER FOR PATENTS  
P.O. Box 1450  
Alexandria, Virginia 22313-1450  
www.uspto.gov

APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
-----------------	-------------	----------------------	---------------------	------------------

10/068,001

02/08/2002

Billy Hogan

HWB 2380-604

6407

23117 7590 06/23/2008

NIXON & VANDERHYE, PC  
901 NORTH GLEBE ROAD, 11TH FLOOR  
ARLINGTON, VA 22203

EXAMINER

NGUYEN, KHAI MINH

ART UNIT

PAPER NUMBER

2617

MAIL DATE

DELIVERY MODE

06/23/2008

PAPER

**Please find below and/or attached an Office communication concerning this application or proceeding.**

The time period for reply, if any, is set in the attached communication.

<b>Office Action Summary</b>	<b>Application No.</b> 10/068,001	<b>Applicant(s)</b> HOGAN ET AL.	
	<b>Examiner</b> KHAI M. NGUYEN	<b>Art Unit</b> 2617	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

### Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

### Status

- 1) ☒ Responsive to communication(s) filed on 3/3/2008.
- 2a) ☒ This action is **FINAL**.                      2b) ☐ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

### Disposition of Claims

- 4) ☒ Claim(s) 1-19, 42-72 and 87-92 is/are pending in the application.
- 4a) Of the above claim(s) \_\_\_\_\_ is/are withdrawn from consideration.
- 5) ☐ Claim(s) \_\_\_\_\_ is/are allowed.
- 6) ☒ Claim(s) 1-3, 5, 6, 15, 16, 18, 42-44, 50, 51, 54-56, 66-69, 71 and 87-92 is/are rejected.
- 7) ☒ Claim(s) 7-14, 17, 19, 46-49, 52, 53, 60-65, 70 and 72 is/are objected to.
- 8) ☐ Claim(s) \_\_\_\_\_ are subject to restriction and/or election requirement.

### Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on \_\_\_\_\_ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.  
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).  
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

### Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All    b) ☐ Some \*    c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_\_.
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

\* See the attached detailed Office action for a list of the certified copies not received.

### Attachment(s)

- |                                                                                                            |                                                                                         |
|------------------------------------------------------------------------------------------------------------|-----------------------------------------------------------------------------------------|
| 1) <input type="checkbox"/> Notice of References Cited (PTO-892)                                           | 4) <input type="checkbox"/> Interview Summary (PTO-413)<br>Paper No(s)/Mail Date. _____ |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948)                       | 5) <input type="checkbox"/> Notice of Informal Patent Application                       |
| 3) <input type="checkbox"/> Information Disclosure Statement(s) (PTO/SB/08)<br>Paper No(s)/Mail Date _____ | 6) <input type="checkbox"/> Other: _____                                                |

## **DETAILED ACTION**

### **Response to Arguments**

1. Applicant's arguments filed on 3/3/2008 have been fully considered but they are not persuasive.

Regarding claims 1-19, 42-72 and 87-92, Applicant argues, on pages 15-19 of the remarks, that Salmela and Norstrand do not disclose, teach, or suggest "an access group classification; wherein the access group eligibility message indicates what subscriber groups are eligible to operate in the cell for which the access group eligibility message is transmitted; advise the UE as to which of the plural access groups it belongs to".

The Examiner respectfully disagrees with Applicant's argument because the current claim language is broad enough to be met by of Salmela and Norstrand. Even though an access group classification (see Norstrand, col.2, lines 15-22, col.4, lines 39-50, depending on factors such as the subscription service area data (if any), the network can either accept or reject the call set up. If the network rejects the call setup because the access was made outside the allowed area for the user, or if the access was made in a cell dedicated to be used only by a subscriber group to which the user does not belong, the signaling connection will be released); wherein the access group eligibility message (see Salmela, pg.5, line 34 to pg.6, line 5) indicates what subscriber groups are eligible to operate in the cell for which the access group eligibility message is transmitted (see Salmela, pg.6, lines 15-20); advise the UE as to which of the plural access groups it belongs to (see Norstrand, col.4, lines 22-28).

***Claim Rejections - 35 USC § 103***

2. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

3. Claims 1-3, 5-6, 15-16, 18, 42-44, 50-51, 54-56, 58-59, 66-69, 71 and 87-92 are rejected under 35 U.S.C. 103(a) as being unpatentable over Salmela, Seija (WO 98/30056) in view of Nordstrand (U.S.Pat-6334052).

Regarding claim 1, Salmela teaches a telecommunications network comprising a radio access network which generates and transmits (fig.1, pg.2, lines 6-17), in a broadcast channel over an air interface (fig.1, pg.2, lines 6-17), an access group eligibility message which enables a user equipment unit which receives the access group eligibility message to make a determination whether the user equipment unit is eligible to operate or not operate in a cell for which the access group eligibility message is transmitted (abstract, pg.4, lines 2-30, pg.5, line 14 to pg.6, line 20), the determination involving a comparison of access group eligibility information transmitted in the access group message and an access group classification (not show) (pg.5, line 14 to pg.6, line 20), the access group classification having been generated by a core network node (fig.1, pag.5, lines 14-27), which classified the user equipment unit into at least one of plural access groups (fig.1, abstract).

Salmela fails to specifically disclose an access group classification. However, Nordstrand teaches an access group classification (col.4, lines 6-50). Therefore, it would have been obvious to one having ordinary skill in the art at the time the invention was made to apply the teaching of Nordstrand with Salmela to provide a method for supplying services to mobile station.

Regarding claim 2, Nordstrand and Salmela further teach the apparatus of claim 1, wherein the access group eligibility message indicates what subscriber groups are eligible to operate in the cell for which the access group eligibility message is transmitted (see Salmela, abstract, pg.4, lines 2-30, pg.5, line 14 to pg.6, line 20).

Regarding claim 3, Nordstrand and Salmela further teach the apparatus of claim 1, wherein the access group eligibility message indicates what restriction groups are not eligible to operate in the cell for which the access group eligibility message is transmitted (see Salmela, abstract, pg.4, lines 2-30, pg.5, line 14 to pg.6, line 20).

Regarding claim 5, Nordstrand and Salmela further teach the apparatus of claim 1, wherein a radio access network node transmits the access group eligibility message (see Salmela, abstract, pg.4, lines 2-30, pg.5, line 14 to pg.6, line 20), and further comprising a core network node which, upon receipt of a location update request for the user equipment unit (see Nordstrand, col.4, lines 29-50, col.10, line 35 to col.11, line 10), classifies the user equipment unit in at least one of plural access groups (see Salmela, abstract, pg.4, lines 2-30, pg.5, line 14 to pg.6, line 20) and generates for transmission to the user equipment unit through a radio access network an access

group classification message which advises the user equipment unit as to which of the plural access groups the user equipment unit belongs (see Salmela, abstract, pg.4, lines 2-30, pg.5, line 14 to pg.6, line 20).

Regarding claim 6, Nordstrand and Salmela further teach the apparatus of claim 5, wherein the user equipment unit stores an access group classification obtained from the access group classification message in a memory at the user equipment unit (see Nordstrand, col.4, lines 6-50).

Regarding claim 15, Nordstrand and Salmela further teach the apparatus of claim 1, wherein the access group classification is transmitted in an access group classification message (see Salmela, pg.6, lines 15-20) which comprises one of a location update response (see Nordstrand, col.4, lines 29-50, col.10, line 35 to col.11, line 10) and a location update reject message (see Nordstrand, col.4, lines 29-50, col.10, line 35 to col.11, line 10), which includes the access group classification (see Nordstrand, col.4, lines 6-50).

Regarding claim 16, Nordstrand and Salmela further teach the apparatus of claim 1, wherein the access group classification message is one of a location update response (see Nordstrand, col.4, lines 29-50, col.10, line 35 to col.11, line 10) and a location update reject message which includes the access group classification and a version field associated with the access group classification (see Nordstrand, col.4, lines 29-50, col.10, line 35 to col.11, line 10).

Regarding claim 18 is rejected with the same reasons set forth in claim 16.

Regarding claim 42, Salmela teaches a user equipment unit which receives over an air interface an access group classification message and an access group eligibility message (fig.1, abstract, pg.5, line 14 to pg.6, line 20), the access group classification message being generated by a core network node for advising the user equipment unit as to which of the plural access groups the user equipment unit belongs (fig.1, abstract, pg.5, line 14 to pg.6, line 20), the access group eligibility message being generated by a radio access network node for specifying eligibility of plural access groups to operate or not operate in a cell for which the access group eligibility message is transmitted (fig.1, abstract, pg.4, lines 2-30, pg.5, line 14 to pg.6, line 20), the user equipment unit comprising:

an access controller which stores an access group classification (not show) obtained from the access group eligibility message compares the stored access group classification (not show) with contents of the access group eligibility message (pg.5, line 14 to pg.6, line 20) to determine whether the user equipment unit is allowed access to the cell for which the access group eligibility message is transmitted (fig.1, abstract, pg.4, lines 2-30).

Salmela fails to specifically disclose an access group classification. However, Nordstrand teaches an access group classification (col.4, lines 6-50). Therefore, it would have been obvious to one having ordinary skill in the art at the time the invention was made to apply the teaching of Nordstrand with Salmela to provide a method for supplying services to mobile station.

Regarding claim 43, Nordstrand and Salmela further teach the apparatus of claim 42, wherein the access group eligibility message indicates what subscriber groups are eligible to operate in the cell for which the access group eligibility message is transmitted (see Salmela, fig.1, abstract, pg.4, lines 2-30, pg.5, line 14 to pg.6, line 20).

Regarding claim 44, Nordstrand and Salmela further teach the apparatus of claim 42, wherein the access group eligibility message indicates what restriction groups are not eligible to operate in the cell for which the access group eligibility message is transmitted (see Salmela, fig.1, abstract, pg.4, lines 2-30, pg.5, line 14 to pg.6, line 20).

Regarding claim 50, Nordstrand and Salmela further teach the apparatus of claim 42, wherein the access group classification message is one of a location update response (see Nordstrand, col.4, lines 29-50, col.10, line 35 to col.11, line 10) and a location update reject message which includes the access group classification (see Nordstrand, col.4, lines 29-50, col.10, line 35 to col.11, line 10).

Regarding claim 51, Nordstrand and Salmela further teach the apparatus of claim 42, wherein the access group classification message includes the access group classification (see Salmela, fig.1, abstract, pg.4, lines 2-30, pg.5, line 14 to pg.6, line 20) and a version field associated with the access group classification (see Salmela, fig.1, abstract, pg.4, lines 2-30, pg.5, line 14 to pg.6, line 20).

Regarding claim 54, Salmela teaches a method of operating a telecommunications network comprising:



transmitting, in a broadcast channel over an air interface (fig.1, pg.2, lines 6-17),  
an access group eligibility message generated by a radio access network (fig.1,  
abstract, pg.2, lines 6-17, pg.4, lines 2-30);

receiveing the access group eligibility message at a user equipment unit (fig.1,  
abstract, pg.4, lines 2-30);

the user equipment unit using the access group eligibility message to make  
determination whether the user equipment unit is eligible to operate or not operate in a  
cell for which the access group eligibility message is transmitted (fig.1, abstract, pg.4,  
lines 2-30), the determination involving a comparison of access group eligibility  
information transmitted in the access group message and an access group classification  
(not show) (pg.5, line 14 to pg.6, line 20), which is generated by a core network (fig.1,  
pag.5, lines 14-27).

Salmela fails to specifically disclose an access group classification. However,  
Nordstrand teaches an access group classification (col.4, lines 6-50). Therefore, it  
would have been obvious to one having ordinary skill in the art at the time the invention  
was made to apply the teaching of Nordstrand with Salmela to provide a method for  
supplying services to mobile station.

Regarding claim 55, Nordstrand and Salmela further teach the method of claim  
54, further comprising including in the access group eligibility message an indication of  
what subscriber groups are eligible to operate in the cell for which the access group

eligibility message is transmitted (see Salmela, fig.1, abstract, pg.4, lines 2-30, pg.5, line 14 to pg.6, line 20).

Regarding claim 56, Nordstrand and Salmela further teach the method of claim 54, further comprising including in the access group eligibility message an indication of what restriction groups are not eligible to operate in the cell for which the access group eligibility message is transmitted (see Salmela, fig.1, abstract, pg.4, lines 2-30, pg.5, line 14 to pg.6, line 20).

Regarding claim 58 is rejected with the same reasons set forth in claim 5.

Regarding claim 59 is rejected with the same reasons set forth in claim 6.

Regarding claim 66, Nordstrand and Salmela further teach the method of claim 54, further comprising:

upon the user equipment unit entering a new cell which involves a transition to a new location area (see Salmela, fig.1, abstract, pg.4, lines 2-30, pg.5, line 14 to pg.6, line 20), checking the access group eligibility message transmitted for the new cell (see Salmela, fig.1, abstract, pg.4, lines 2-30, pg.5, line 14 to pg.6, line 20); and

comparing the stored access group classification with contents of the access group eligibility message to determine whether the user equipment unit is allowed access to the new cell (see Salmela, pg.5, line 14 to pg.6, line 20).

Regarding claim 67, Nordstrand and Salmela further teach the method of claim 66, further comprising, upon the user equipment unit entering a new cell which does not

involve a transition to a new location area (see Salmela, abstract, pg.5, line 14 to pg.6, line 20), the user equipment unit not checking the access group eligibility message (see Salmela, pg.5, line 14 to pg.6, line 20).

Regarding claim 68, Nordstrand and Salmela further teach the method of claim 54, wherein the access group classification is transmitted in an access group classification message (see Salmela, pg.6, lines 15-20) which comprises one of a location update response (see Nordstrand, col.4, lines 29-50, col.10, line 35 to col.11, line 10) and a location update reject message which includes the access group classification (see Nordstrand, col.4, lines 29-50, col.10, line 35 to col.11, line 10).

Regarding claim 69 is rejected with the same reasons set forth in claim 18.

Regarding claim 71 is rejected with the same reasons set forth in claim 18.

Regarding claims 87-89, Nordstrand and Salmela further teach the apparatus of claims 1, 42 and 54, where the access group eligibility information comprises a subscriber group having a composition pre-agreed with a network operator (see Salmela, pg.5, line 14 to pg.6, line 20).

Regarding claim 90, Nordstrand and Salmela further teach the apparatus of claim 1, wherein the access group classification is received individually by the user equipment unit (see Salmela, abstract, see Nordstrand, fig.5), and wherein the user equipment unit is configured to make the determination whether the user equipment unit is eligible to operate or not in the cell without the user equipment unit establishing a connection with the radio access network (see Nordstrand, col.4, lines 6-50).

Regarding claim 91 is rejected with the same reasons set forth in claim 90.

Regarding claim 92 is rejected with the same reasons set forth in claim 90.

4. Claims 4, 45, and 57 are rejected under 35 U.S.C. 103(a) as being unpatentable over Salmela, Seija (WO 98/30056) in view of Nordstrand (U.S.Pat-6334052) and further in view of Keronen et al. (U.S.Pub-20030003909).

Regarding claim 4, Nordstrand and Salmela further teach the apparatus of claim 1,

Nordstrand and Salmela fail to specifically disclose wherein the access group eligibility message includes a bitmap which indicates eligibility for plural access groups. However, Keronen teaches wherein the access group eligibility message includes a bitmap which indicates eligibility for plural access groups (fig.3-5, [0011]-[0013]). Therefore, it would have been obvious to one having ordinary skill in the art at the time the invention was made to apply the teaching of Keron to Nordstrand and Salmela to provide a method for providing location-specific service provider information to a mobile station.

Regarding claim 45 is rejected with the same reasons set forth in claim 4.

Regarding claim 57 is rejected with the same reasons set forth in claim 4.

#### ***Allowable Subject Matter***

5. Claims 7-14, 17,19, 46-49, 52-53, 60-65, 70 and 72 are objected to as being dependent upon a rejected base claim, but would be allowable if rewritten in independent form including all of the limitations of the base claim and any intervening claims.

***Conclusion***

6. **THIS ACTION IS MADE FINAL.** Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

A shortened statutory period for reply to this final action is set to expire THREE MONTHS from the mailing date of this action. In the event a first reply is filed within TWO MONTHS of the mailing date of this final action and the advisory action is not mailed until after the end of the THREE-MONTH shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event, however, will the statutory period for reply expire later than SIX MONTHS from the mailing date of this final action.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to KHAI M. NGUYEN whose telephone number is (571)272-7923. The examiner can normally be reached on 8:00-5:00.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Vincent P. Harper can be reached on 571.272.7605. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

/VINCENT P. HARPER/  
Supervisory Patent Examiner, Art Unit 2617

/Khai M Nguyen/  
Examiner, Art Unit 2617

6/18/2008